

IN THE SPECIFICATION

Please replace the paragraph beginning at page 3 line 11, with the following rewritten paragraph:

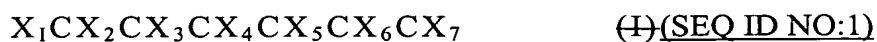
The inventors have thus noted that this toxicity is associated with isoforms of a protein which has a sequence similar to that of the PA1b pea albumin (SEQ ID NO:7) described by HIGGINS et al. [J. Biol. Chem., 261(24), pp. 11124-11130, (1986)], and which shows strong similarity (65% identity) with soybean leginsulin (SEQ ID NO:8) [WATANABE et al., Eur. J. Biochem., 15, pp. 224:1-167-72, (1994)]. No entomotoxic property had until now been associated with the PA1b protein (SEQ ID NO:7), with leginsulin (SEQ ID NO:8) or with other homologous proteins.

Please replace the paragraph beginning at page 3, line 21, with the following rewritten paragraph:

The alignment of the sequence of one of the isoforms of the protein purified by the inventors, with those of the pea PA1b protein (SEQ ID NO:7), published by HIGGINS et al., and of soybean leginsulin (SEQ ID NO:8), published by WATANABE et al., is represented in Figure 7. These 3 sequences include in particular 6 cysteine residues which occupy conserved positions.

Please replace the paragraph beginning at page 3, line 28, with the following rewritten paragraph:

A subject of the present invention is the use, as an insecticide, of a polypeptide comprising a sequence which satisfies the following general formula (I):



Please replace the paragraph beginning at page 5, line 28, with the following rewritten paragraph:

Polypeptides which can be used in accordance with the invention may be natural polypeptides, for example leginsulins of legumes, such as the soybean leginsulin (SEQ ID NO:8) described by WATANABE et al.; they may also be artificial polypeptides, the sequence of which is derived from that of a PA1b (SEQ ID NO:7) by adding, deleting or substituting a small number of amino acids. It is possible to use, for example, polypeptides comprising a sequence which satisfies the general formula (I) (SEQ ID NO:1), or a portion of this sequence which corresponds to the region involved in the insecticidal activity. This active peptide can optionally be fused, at its N-terminal end and/or at its C-terminal end, with another peptide sequence.

Please replace the paragraph beginning at page 6, line 4, with the following rewritten paragraph:

These polypeptides can be obtained by conventional methods, known per se, for example by peptide synthesis, or by genetic engineering, by expressing, in a suitable host cell, a sequence encoding the desired polypeptide. They can also, in the case of natural polypeptides, such as PA1b (SEQ ID NO:7) and leginsulin (SEQ ID NO:8), be purified from seeds of plants such as legumes or Meliaceae.

Please replace the paragraph beginning at page 6, line 12, with the following rewritten paragraph:

In accordance with the invention, the polypeptides comprising a sequence of general formula (I) (SEQ ID NO:1) can be used as the only active principle of an insecticide, or

combined with one or more other active principles. They can be used in particular for combating insects which are pests for cereal seeds, and also for combating plant-feeding insects, such as the lepidoptera *Mamestra brassicae* or *Ostrinia nubilalis* or the *Coleoptera chrysomelidae*, for instance *Phaedon cochleariae* or *Curculionidae*, for instance *Anthonomus grandis*, or combating phloem-feeding insects such as aphids.

Please replace the paragraph beginning at page 6, line 24, with the following rewritten paragraph:

Furthermore, the inventors have noted that the PA1b protein (SEQ ID NO:7) conserves its insecticidal activity for several years in dry seeds, and that this activity is not affected by heating to 100°C.

Please replace the paragraph beginning at page 6, line 31, with the following rewritten paragraph:

The polypeptides of general sequence (I) (SEQ ID NO:1) are particularly suitable for protecting, especially during storage, seeds, flours or transformed products which are derived therefrom.

Please replace the paragraph beginning at page 6, line 35, with the following rewritten paragraph:

For the implementation of the present invention, the concentration of the polypeptide of sequence (I) (SEQ ID NO:1) in the product to be protected (plant, seeds or derived products) is generally from 10 µmol/kg to 100 mmol/kg (or from 10µM to 100 mM), and advantageously from 50 µmol/kg to 10 mmol/kg (or from 50 µM to 10 mM).

Please replace the paragraph beginning at page 7, line 24, with the following rewritten paragraph:

It is thus possible to obtain, in a plant, ubiquitous expression and/or expression and/or overexpression in certain tissues or organs (for example in seeds) of a polypeptide of sequence (I) (SEQ ID NO:1), and as a result, to protect the plant, tissue or organ concerned against attacks by insects for which this polypeptide is toxic. In particular, the expression of a polypeptide of sequence (I) (SEQ ID NO:1) in the seeds makes it possible to protect them, even after harvest, as well as the transformed products and flours obtained from these seeds.

Please replace the paragraph beginning at page 12, line 29, with the following rewritten paragraph:

This analysis shows that the TP fraction contains only the toxic protein TP (SEQ ID NO:6). The F1 fraction is more complex and contains two major polypeptides.

Please replace the paragraph beginning at page 13, line 18, with the following rewritten paragraph:

The complete sequence of the TP protein (SEQ ID NO:6) was established . The mass calculated from the 37 residues of the protein is 3741.4 Da, which is identical, give or take the measurement error, to that determined by mass spectrometry (3741.1 Da) for the native protein. The value calculated for the protein alkylated with iodoacetamide (4090 Da) is also equivalent to that obtained experimentally (4089.9 Da). These results demonstrate the absence of post-translational modifications (glycosylations, phosphorylations, etc.) of the protein.

Please replace the paragraph beginning at page 13, line 29, with the following rewritten paragraph:

The sequence of the TP protein (SEQ ID NO:6) shows very strong homology with that of the PA1b pea albumin (SEQ ID NO:7) [HIGGINS et al., J. Biol. Chem., 261(24), pp. 11124-11130, (1986)]. The two sequences differ only by the replacement of the valine residue at position 29 in the TP protein (SEQ ID NO:6) with an isoleucine in PA1b (SEQ ID NO:7). Strong similarity (62% identity, 89% homology, determined with the aid of the MACMOLLY program using the BLOSUM62 matrix) is also observed between the TP protein (SEQ ID NO:6) and soybean leginsulin (SEQ ID NO:8) [WATANABE et al., Eur. J. Biochem., 15, pp. 224:1-167-72, (1994)]. In particular, the 6 cysteine residues, which play an essential role in the structure of the proteins, occupy conserved positions.

Please replace the paragraph beginning at page 14, line 6, with the following rewritten paragraph:

These results make it possible to conclude that the protein responsible for the resistance of pea to cereal weevils is similar to the PA1b protein (SEQ ID NO:7) described by HIGGINS. This protein is synthesized in the form of a 130-residue preproprotein (PA1) which undergoes post-translational maturation releasing the PA1b protein (SEQ ID NO:7) and a 53-residue protein named PA1a [HIGGINS et al., J. Biol. Chem., 261(24), pp. 11124-11130, (1986)].

Please replace the paragraph beginning at page 14, line 14, with the following rewritten paragraph:

Sequencing of the first 10 N-terminal residues of each of the toxic polypeptides of the F1 fraction was also carried out. The sequences obtained are identical to that of the N-terminal end of the TP protein. As, in addition, the masses of these polypeptides determined

by ES-MS are very close to that of TP, it appears that these polypeptides represent isoforms of TP.

Please replace **Figure 3** description beginning on page 3 with the following rewritten Figure 3 description to correct **an error** in the reference to a SEQ ID NO:7:

Figure 3 shows the alignment of the sequence of one of the TP proteins (SEQ ID NO:6), with those of pea PA1b protein (SEQ ID NO:67) and soybean leginsulin (SEQ ID NO:8).